



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/534,170	03/24/2000	Yoram Levanon	1268-094	2252

7590 05/05/2004

Lowe Hauptman Gopstein Gilman & Berner LLP  
Suite 310  
1700 Diagonal Road  
Alexandria, VA 22314

EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

3622

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/534,170

Applicant(s)

LEVANON ET AL.

Examiner

Stephen M Gravini

Art Unit

3622

MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-13 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-13 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable

Art Unit: 3622

subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete, and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). Together, the "technological arts" and "useful, concrete, and tangible result" judicial review standard, result in a comprehensive examination standard wherein the "technological arts" is one element and the "useful, concrete, and tangible result" is another complementary element.

This comprehensive examination standard was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an

Art Unit: 3622

improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in

Art Unit: 3622

*State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. The Board of Patent Appeals and Interferences (BPAI) have recently acknowledged this dichotomy in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BPAI 2001).

Claims 1-3, 5, 7, 8, 11-13, and 22 are rejected under 35 U.S.C. 101 because the independently claimed invention does not recite a useful, concrete, and tangible result under *In re Alappat*, 31 USPQ2d 1545 (Fed. Cir. 1994) and *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 47 USPQ2d 1596 (Fed Cir. 1998) such that the claimed invention is within the technological arts under *In re Waldbaum* 173 USPQ 430 (CCPA 1972) wherein the phrase "technological arts" is synonymous with "useful arts" as it appears in Article I, Section 8 of the United States Constitution. In this claim, it is considered that a concrete and tangible result within the technological arts is not recited. Specifically, the recitation of storing information in a database, determining a tendency, sorting the database, determining a campaign, displaying the campaign, collecting information, and/or outputting the determined is considered not to be within the technological arts because the claimed invention can be practiced without mechanical intervention or structural interaction necessary under current Office policy guiding examination of business method applications. Furthermore, under *In re Wamerdam*, 33 F.3d 1354; 31 USPQ2d 1754 (Fed. Cir. 1994), the storing information in a database, determining a tendency, sorting the database, determining a campaign, displaying the campaign, collecting information, and/or outputting the determined are considered intangible because those steps are simply an abstract construct, such as a

Art Unit: 3622

disembodied data structure and a method of making it, wherein those recitations involve more than a manipulation of an abstract idea and therefore is non-statutory under 35 USC 101. Because the independently claimed invention does not recite a useful, concrete, and tangible result, such that it is considered not within technological arts so that it uses technology in a non-trivial matter. Finally under *Ex parte* Bowman, 61 USPQ2d 1665 (Bd. Pat. App. & Inter. 2001) (unpublished but cited for analysis rather than precedent), in which an invention disclosed and claimed directed to a human merely making mental computations and manually plotting results on a paper chart is nothing more than an abstract idea which is not tied to any technological art and is not a useful art as contemplated by the United States Constitution. In this independently claimed invention, the steps of storing information in a database, determining a tendency, sorting the database, determining a campaign, displaying the campaign, collecting information, and/or outputting the determined are considered nothing more than an abstract idea since it is not tied to any technological art. Dependently claimed features including a questionnaire, disposition levels, unique features, orientation combinations, consumer parameters or patterns, and specific stimulus are also considered to be non-patentable since those claimed features are not considered useful, concrete, and tangible results within the technological arts for the same reasons the independently claimed invention is not considered patentable. However in order to consider those claims in light of the prior art, examiner will assume that those claims recite statutorily permitted subject matter.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3622

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 recites the broad recitation conducting a service, and the claim also recites especially useful for various situations which is the narrower statement of the range/limitation.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 is considered indefinite because it contains a narrow recitation together with a broad recitation in the same claim.

***Claim Rejections - 35 USC § 103***



Art Unit: 3622

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Refuah et al. (WO 99/39281) in view of either reference U or reference v, cited in this action. Refuah is considered to disclose the claimed method comprising:

(a) collecting emotional orientation information obtained from a potential consumer based on an immediate individual emotional response of the consumer according to emotional orientations (page 4 lines 21-22 wherein the disclosed site obtaining user persona and/or mood is considered patentably equivalent the claimed consumer emotional information collection because both gather information relating to a persona, mood, and/or emotional state);

(b) storing the emotional orientation information of the consumer in a personal character profile record in a database, wherein the personal character profile record includes a value indicative of the emotional orientation of the consumer (page 4 lines

Art Unit: 3622

28-29 wherein the disclosed computer user personality storage is considered to anticipate the claimed consumer emotional orientation storage because personality determines emotional orientation);

(c) determining, based on the stored emotional orientation information in the personal character profile record, a predominant tendency of the consumer toward one individual emotional orientation (page 6 lines 27-34 wherein the disclosed mood update implicitly teaches the claimed consumer predominant emotional orientation determination because the updating disclosure implies a comparison between a stored value and current value and because a mood defines an emotional orientation of a user);

(d) sorting the character profile record in the database into clusters, wherein each cluster corresponds to a subset of character profile records determined to have a predominant tendency toward one of the individual emotional orientations (page 7 line 31 through page 8 line 10 wherein the disclosed parameter organization is considered to expressly anticipate the claimed cluster character profile sorting because a persona or character profile are both organized or sorted by predominant tendencies, such as the disclosed baseball interest or garish color scheme);

(e) determining, based on the predominant tendency toward the one of the individual emotional orientations of the cluster of the character profile record of the potential consumer, an appropriate marketing campaign directed to the specific cluster including the personal character profile record of the potential consumer having a particular emotional orientation (page 9 lines 8-12 wherein the disclosed personal

Art Unit: 3622

tailored advertisement is considered to be the same as the claimed appropriate marketing campaign determination because both target a promotion or incentive towards a consumer user based on mood, persona, and/or emotional orientation); and

(f) displaying the determined marketing campaign to the potential consumer or outputting a determined matched other user to a user (page 15 line 5 wherein the disclosed interactor advertisement presentation is considered an identical function, method, and purpose as the claimed consumer marketing campaign display or user outputting because both compare consumer emotional or mood information with promotional incentive information for displaying, outputting, or presenting marketing or advertisement information). Refuah is considered to also disclose the claimed questionnaire (page 29 line 21), interactive medium including the internet (page 6 line 16) or telephone (page 6 line 1), unique features (page 7 line 30), degree of cluster combination (page 7 line 34), and consumer stimulus response (page 4 line 13).

Refuah is considered to disclose the claimed invention except of the claimed value of one of a survival type, growth type, relaxation type, and a combination thereof.

Reference U or reference V is considered to disclose the claimed value of one of a survival type, growth type, relaxation type, and a combination thereof in the bolded text highlight of each of those references. In reference U, the disclosed fun and excitement category is considered to directly correspond to the claimed growth type, the disclosed relaxation and stress removal category is considered to directly correspond to the claimed relaxation type, and the disclosed trust and safety category is considered to directly correspond to the claimed survival type. In reference V, the disclosed fun and

Art Unit: 3622

excitement emotional shopper is considered to directly correspond to the claimed growth type, the disclosed stress reduction emotional shopper is considered to directly correspond to the claimed relaxation type, and the disclosed family welfare, trust and safety emotional shopper is considered to directly correspond to the claimed survival type. It would have been obvious to one skilled in the art to combine the teachings of Refuah with either reference U or reference V, for the purpose of distinguishing categories, clusters, or emotional shopper designations for targeted advertising.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-13 and 22 have been considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3622

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steve Gravini whose telephone number is (703) 308-7570 and electronic transmission / e-mail address is [steve.gravini@uspto.gov](mailto:steve.gravini@uspto.gov).

Examiner can normally be contacted Monday through Friday from 6:00 a.m. to 3:30 p.m. **If applicants choose to send information by e-mail, please be aware that confidentiality of the electronically transmitted message cannot be assured.**

Please see MPEP 502.02. Information may be sent to the Office by facsimile transmission. The Official Fax Numbers for TC-3600 are:

After-final	(703) 872-9327
Official	(703) 872-9306
Non-Official/Draft	(703) 872-9325

  
**STEPHEN GRAVINI**  
**PRIMARY EXAMINER**

smg  
May 3, 2004